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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,538	04/15/2004	Toshihiro Takahashi	251893US2	6546
22850	7590	12/16/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			LERNER, AVRAHAM H	
			ART UNIT	PAPER NUMBER
			3611	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/824,538

Applicant(s)

TAKAHASHI ET AL.

Examiner

Avraham Lerner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 7, 8 and 10 is/are rejected.
- 7) ☒ Claim(s) 3, 5, 6 and 9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 4, 7, 8, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishizaki et al. (U.S. Patent No. 6,079,513).

Nishizaki et al. discloses a steering apparatus comprising all elements as claimed, including a steering mechanism that is mechanically separate from the steering wheel (see especially Fig. 1), wherein the steering mechanism includes a steering rod (11) and a steering actuator (M_1), wherein the steering actuator drives the steering rod; a steering wheel position detector (24) for detecting a steering position of the steering wheel; a control system that determines a target steered position of the steering rod based on the detected steering position of the steering wheel (see e.g. column 8, last full paragraph), wherein the control system performs feedback control of the steering actuator based on the target steered position and an actual steered position of the steering rod; a reaction force actuator (M_2), wherein the reaction force actuator applies reaction force to the steering wheel based on force that the steering mechanism receives from a road; and an elastic member (torsion bar 20) that couples the reaction force

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actuator to the steering wheel, wherein the elastic member is located between the steering wheel and the reaction force actuator, and wherein, with respect to the elastic member, a side closer to the steering wheel is referred to as a primary side, and a side closer to the reaction force actuator is referred to as a secondary side, wherein the steering wheel position detector is located at the secondary side, and wherein a speed reducing mechanism (25) is located between the reaction force actuator and the elastic member, and wherein the speed reducing mechanism decelerates rotation of the rotation force actuator. Note that although steering angle sensor 24 is recited by Nishizaki et al. to be used in the event of a failure of primary sensor 23 (located closer to the primary side), this does not preclude the anticipation of all claimed elements in the reference with sensor 24.

Allowable Subject Matter

4. Claims 3, 5, 6, and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bohner et al. (U.S. Patent No. 5,896,942), Nishizaki et al. (U.S. Patent No. 6,698,542 B2), Nakano et al. (U.S. Patent No. 6,523,637), Kawaguchi et al. (U.S. Patent No. 6,213,248 B1), and Serizawa et al. (U.S. Patent No. 5,097,917) disclose steering assemblies having no mechanical connection between a steering wheel and steering mechanism, and having reaction force actuators connected to the steering wheels.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Avraham Lerner whose telephone number is (703) 308-0423.

The examiner can normally be reached on M-F (8:15-5:45) first Wednesday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on (703) 308-0629. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AVRAHAM LERNER
PRIMARY EXAMINER

A. Lerner 12/10/04

December 10, 2004